

SECTION 11132

MANUAL PROJECTION SCREENS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Manually operated projection screens and accessories.

1.02 REFERENCES

- A. Society of Motion Picture and Television Engineers (SMPTE):
 - 1. SMPTE RP 94-2000 - Gain Determination of Front Projection Screens.

1.03 DEFINITIONS

- A. Gain: Indication of screen's luminance or brightness measured perpendicular of screen center and measured relative to a block of magnesium carbonate which serves as the standard for 1.0 gain. Higher numbers indicate greater brightness. Gain shall be determined in accordance with SMPTE RP 94-2000.
- B. Viewing angle: Angle from perpendicular center of screen at which the gain or brightness is decreased by 50 percent.
- C. Keystone: Distortion of projected image when screen is not perpendicular to center line of projected image.

1.04 SUBMITTALS

- D. Provide in accordance with Section 01330 - Submittal Procedures:
 - 2. Product data for projection screens and accessories.
 - 3. Shop drawings: Indicate dimensions, fabrication, and installation details.
 - 4. Samples:
 - a. Finishes
 - b. Viewing surface: 6 by 6 inches minimum size.
 - 5. Manufacturer's installation, maintenance, and cleaning instructions.

1.01 QUALITY ASSURANCE

- A. Manufacturer qualifications: Firm with 30 years minimum successful experience manufacturing projection screens.

1.02 DELIVERY, STORAGE, AND HANDLING

- A. Deliver projection screens after building is enclosed and construction where screens will be installed is substantially complete.
- B. Deliver screens in manufacturer's undamaged, labeled packaging.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- C. Da-Lite Screen Company, Inc.
 - 1. Address: 3100 North Detroit Street, P.O. Box 137, Warsaw, Indiana 46581-013
 - 2. Telephone: 800-622-3737 or 574-267-8101.
 - 3. Fax: 574-267-7804.
 - 4. Website: www.da-lite.com.
- D. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01630 - Product Substitution Procedures.

2.03 ROLLERS

- A. Provide rigid metal spring rollers for operation of manual screens. Fabricate from either steel or aluminum. Material and roller diameter determined by manufacturer as required by type and size of manual screen.

2.04 VIEWING SURFACE

- A. High Contrast Matte White as manufactured by Da-Lite Screen Company, Inc.: Flame retardant, mildew resistant, vinyl coated fiberglass screen with gray base material and reflective top surface that can be rolled and cleaned with mild soap and water solution.
 - 1. Gain: 1.1.
 - 2. Viewing angle: 45 degrees.
- B. Seams: To the extent possible screen surfaces shall be seamless. Where required by size, provide a minimum number of flat, horizontal seams. Vertical seams are not acceptable.

2.05 MANUALLY OPERATED PROJECTION SCREENS

- A. Type: Manually operated, retractable projection screen with rigid metal, spring roller and mechanism to ensure quiet, controlled screen return (CSR); Designer Contour Manual as manufactured by Da-Lite Screen Company, Inc.
 - 1. Installation method: Wall mounted with bracket adjustable from 14-1/2 to 24 inches.
 - 2. Case: Two piece extruded aluminum case with curved contour and flat back and top.
 - a. Case length: 99 inches.
 - b. Finish: White, lightly textured powder paint coating.
 - 3. Controlled screen return (CSR): Provide mechanism to control screen return speed into case ensuring quiet, even movement.
 - 4. Attach screen fabric to roller with metal strip crimped to fabric and inserted in camloc device on roller. Screen shall be removable for replacement but prevented from pulling out from roller. Use of tape, glue, staples, and cords is not acceptable. Mount fabric bottom to metal strip in tubular steel slat. Protect slat ends with plastic caps. Screw attach zinc plated pull to slat.
 - 5. Viewing surface: High Contrast Matte White.
 - a. Size: 52 inches high by 92 inches wide.
 - b. Provide with black masking borders.

2.06 ACCESSORIES

- A. Installation hardware: Provide attachment hardware, fasteners, and other components of type, size, and spacing recommended by manufacturer for complete, functional, secure installation of manual screens.
- B. Tilt lock: Provide manual screens with tilt lock to hold screen in tilted backward position to eliminate keystoneing. Device to consist of removable hook magnetically attached to metal mounting plate adhered to wall with adhesive.
- C. Pull rods: Provide manual screens with zinc-plated rod with black plastic handle grip to access and operate out of reach screens. Rod shall be suitable for use as pointer.

PART 3 - EXECUTION

3.01 COORDINATION

- A. Coordinate provision of manual screens with locations of other wall and ceiling mounted components such as visual display boards, casework, structural framing, light fixtures, air diffusers, ducts, and fire sprinklers to eliminate potential conflicts.
- B. Coordinate requirements for blocking, [construction of recesses,] and auxiliary structural supports to ensure adequate means for installation of screens.

3.02 INSTALLATION

- A. Install screens in accordance with approved shop drawings and manufacturer's installation instructions.
- B. Install projection screens at locations and heights indicated on Drawings. Verify locations in field with Architect.
- C. Install screens securely to supporting substrate so that screens are level and back of case is plumb.

3.03 TESTING AND PROTECTING

- A. Operate each screen three times minimum. Ensure screens properly extend and retract and that screen is level and viewing surface plumb when extended. Adjust to correct deficiencies.
- B. Protect projection screens from damage resulting from subsequent construction activities. Remove and replace damaged screens.

END OF SECTION